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INFORMATION REPORT INFORMATION REPORT

CENTRAL INTELLIGENCE AGENCY

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COUNTRY	East Germany	REPORT	
SUBJECT	Standards for Special Steel All for East German Aircraft Indust	oys DATE DISTR. 49 JUN 1957 NO. PAGES 1 REQUIREMENT NO. RD	<u>'</u>
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	steel alloys for the East Germa	7/9	6 44
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Sanitized Copy Approved for Release 2010/02/25 : CIA-RDP80T00246A035200080001-2	25X1
Standards for Tpecial Steel Alloys for East Cerman Aircraft	
lndustry	
1. LW 1670 "Aircraft Industry	25 X 1
Material")	
Cr-Ni-Ti- Steel 1670.70	
6z6 "tensile strength") Sigma _{zB} 55 kg/mm ²	25 X 1
6 s Sigmas - "limit of expansion")	25 X 1
- $(20) \text{ kg/mm}^2$ (if a rod is exposed to a	
pull of less than 20 kg/mm ² the rod will	
return to its original shape	
d ₅ (Stretching) 40% (minimum) yexplanah nu is needo Content of Alloy See reverse and —	/ 25X1
Content of Alloy See reverse side -	ブ
C less than 0.14%	
Si " " 1.0	
Mn " 1.5	
P " 0.035	
S " " 0.020	
&x Ti " " 0.8	
Cr between 17.0 and 20.0%	
Ni " \$8.0 " 11.0%	
Hardening with water at 1100° - 1150° Centrigrade	
Must be corrosion proof, will not (flake) at high	25 X 1
temperatures, must have high resistance against intercrys-	
talline corrosion	

Used for exhaust studs, mufflers, gas conduits for turbocompressors.

2. LW 1740

Cr Mn Ni Si V Mo Steel

LW- Nu ber

1740.02

1740**.0**1

1740.90

rods up 🗱

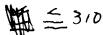
forged pieces

(up to 60 Ø)

10 to 60 mm ø

special treatment*

hot rolled forged



(269 - 350)

Themical composition in %

C	Si	Mn	P	S	Cr	Ni	V	Mo
0.38	0.9	6.0	_ *	=	14.0	6.0	1.30	0.65
			0.045					
0.47	1.4	8.0			16.0	8.0	1.90	0.95

Must be helt proof, flake proof at high temperatures, and corrisionproof.

* Must be hardened at 1170° to 1190° C in water or air, then must be reheated for 8 - 10 hours at indicated temperature: 790° - 810°C.

3. LY 1660

- Steel

25X1

	1660.75	1660.72
	sheets 1 to 4 mm	sheets 5 - 10 mm
Sigma _{zB}	58	55
Sigma _s	(27)	(25)
d ₅	40	40
hardened at	1030 ⁰ -1070 ⁰ C, water	1080 <mark>-</mark> 1130° C, water or
	or air SECRET	air

Chemical composition in %

C Si Mn P S Cr Ni
$$\stackrel{=}{=} = = = = 22.0 17.0$$
0.18 1.0 1.5 0.035 0.030 25.0 20.0

must be corrosion proof, heat resistant, flake proof

used for combustion chamber parts and jet parts

4. LW 1725

Cr Ni W - Steel

_ _ _ _ _ _ _ _

1725.22

1725.21

1725.90

10 - 100 mm \emptyset Forged pieces up to 100 mm \emptyset

hot rolled

special treament

Brinnell

harden with water 1050-1100°C reheat at 750.820°C five hours

Hardness 163-241

163–241 (179–269)

degree

Themical composition in %

C Si Mn P S Cr Ni W Mo

0.4 0.3
$$\stackrel{?}{=}$$
 $\stackrel{?}{=}$ 13.0 13.0 2.0 0.25

to to 0.7 0.030 0.020 to to to

0.5 0.8

non-magnetizable; good to medium stability against lead compounds at high temperatures.

used for interior cooled exhaust valves und uncooled intake valves of aircraft engines